

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Norio MAEDA et al.

Patent Art Unit: 3749

Serial No.: 09/936,618

Examiner: Kathryn S. O'Malley

Filed: March 5, 2002

For:

METHOD AND DEVICE FOR DRYING

SUBSTRATE

INFORMATION DISCLOSURE STATEMENT WITH CERTIFICATION

Assistant Commissioner of Patents Washington, DC 20231

Sir:

In accordance with MPEP 609 and 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicants bring the attached references to the Examiner's attention and requests that they be considered and made of record in this application. Also attached are a completed PTO-1449 form and a Supplemental European Search Report for a corresponding European application of the present application.

This Information Disclosure Statement is filed together with a Request for Continued Examination. In other words, this Information Disclosure Statement is being filed prior to a first Office Action on the merits, based on the Request for Continued Examination. *Thus, no fee is believed to be due for this Information Disclosure Statement*. However, Applicants authorize the Commissioner of Patents and Trademarks to charge payment of the Petition fee Under 37 C.F.R. §1.17(p) *if required* and any other fees associated with this communication or credit any overpayment to Deposit Account No. 50-1836.

Japanese Laid-open Examined Patent Publication No. 6-103686 discloses a surfacedrying processing method and device to prevent the contamination of a wafer surface and to improve drying efficiency by substituting washing fluid with drying vapor and directly substituting washing fluid on a surface at a speed at which liquid drips do not remain. The Serial No.: 09/936,618 Filed: March 5, 2002

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upper part of a container 12 is filled with drying vapor 32, and washing liquid 30 is partially

filled as the boundary 34 of gas-liquid-solid is pushed downward through a wafer in a wafer

instructing container 18 at an upper side. When saturated drying vapor flows into the

container 12 and drying fluid is substituted for washing fluid from the wafer 16 on the

boundary 34, drying fluid is mixed with washing fluid, and a clear drying fluid layer is

formed on the upper part of washing fluid. The final washing fluid and drying fluid layer

flows out of the container 12, and is made to flow into a boiler 14. When the boundary 34

drops at a sufficiently low speed, water/isopropanol boundary removes all water drops and

the liquid drips of azeotrope from the wafer 16 as a liquid face drops. Thus, drying can be

surely executed, without contaminating the surface of an object.

Respectfully submitted,

David L. Tarnoff Reg. No. 32,383

SHINJYU GLOBAL IP COUNSELORS, LLP 1233 Twentieth Street, NW, Suite 700

Washington, DC 20036

Phone No. (202)-293-0444

Dated: 4-28-04

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PTO/SB/08A (10-01) Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known 09/936,618 Application Number March 5, 2002 Filing Date First Named Inventor Norio MAEDA Group Art Unit 3749 Examiner Name Kathryn S. O'Malley DK-US035114

(use as many sheets as necessary) of Attorney Docket Number

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間	282	U.S. PATENT DOCUMENTS								
15	4	EARTINEC	Cite No.1	Document Number	Publication Date MM-DD-YYYY		Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant	
PATENT & TRACE		Extramer mittals		Number - Kind Code ² (if known)					Passages or Relevant Figures Appear	
	MIN OF	-		US- 5,653,045-B1	08-05-1	997	Ferrell		Figures	
				US- 5,685,086-B1	11-11-1	997	Ferrell		Abstract	
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	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	0:1-	Foreign Patent Document		Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
	Cite No. ¹	Country Code ³ - Number ⁴ - Kind Code ⁵ (<i>if known</i>)	Publication Date MM-DD-YYYY	Applicant of Cited Document		T ⁶	
		JP-6-103686-B2	12-14-1994	McConell et al.		No	
		JP-10-189517-A	07-21-1998	Uenosono	Abstract	Yes	
		- Franke (Bart					

Examiner Signature	Date Considered	

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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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